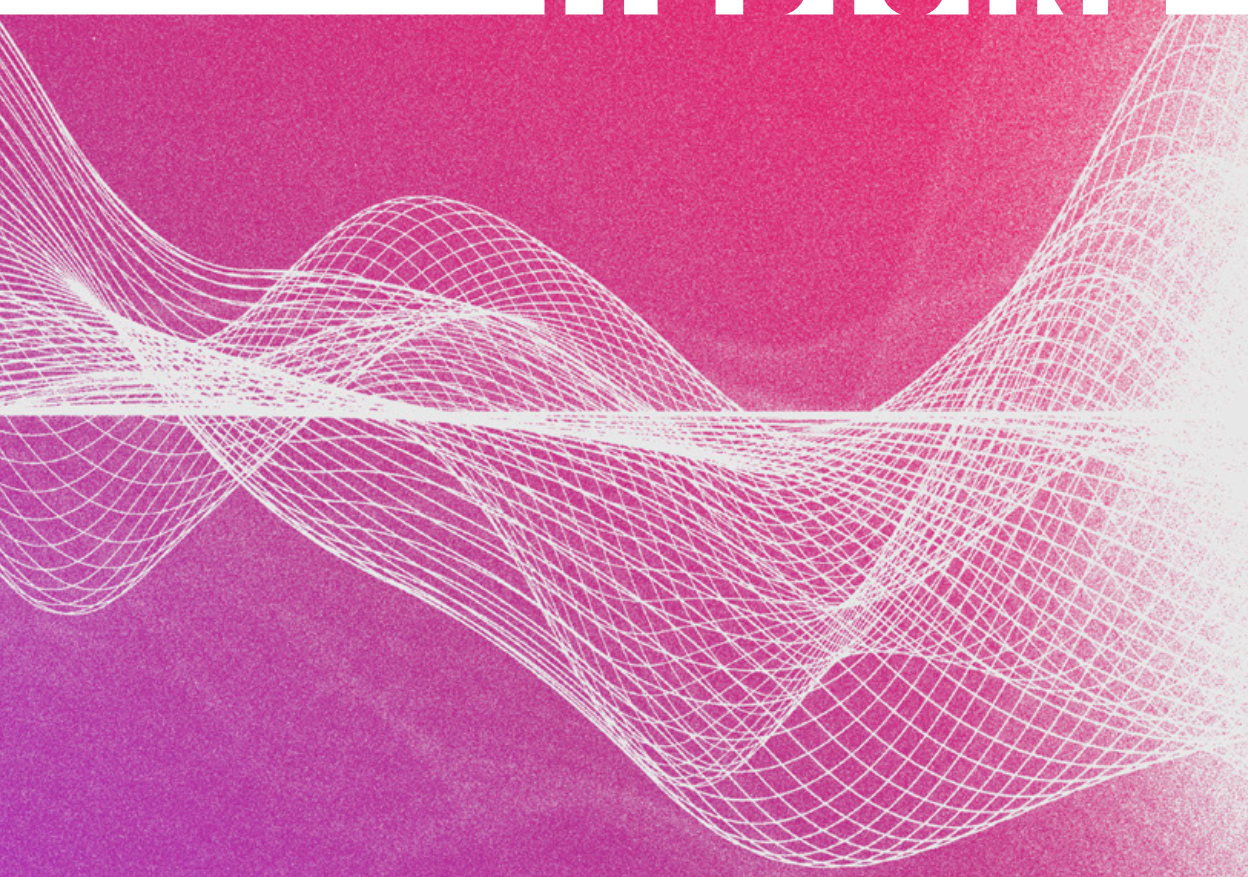


# EMPOWERING MEDICINE



2019 ANNUAL REPORT

THE JACKSON LABORATORY

*The Jackson Laboratory's purposes are scientific, medical and educational. Our mission is to discover precise genomic solutions for disease and empower the global biomedical community in our shared quest to improve human health.*

Get the latest news and insights.  
Visit [www.jax.org/news](http://www.jax.org/news).

# JAX FACTS

## A GROWING FOOTPRINT

The Jackson Laboratory (JAX) employs more than 2,400 staff worldwide.

Researchers at the headquarters and mammalian genetics campus in Bar Harbor, Maine study the fundamental genetics underlying cancer, diabetes, Alzheimer's and many other diseases. Additionally, JAX's extensive and unique mouse models, database resources, educational programs and clinical research services empower and enable the work of scientists all across the globe.

Elsewhere in Maine, JAX staff members in Augusta manage the activities of The Maine Cancer Genomics Initiative, a special alliance of cancer experts, clinicians and researchers who are focused on improving outcomes for cancer patients. The Charles E. Hewett Center in Ellsworth is a state-of-the-art mouse vivarium that enables wider access to vital JAX® Mice resources for the worldwide biomedical research community.

Researchers at The Jackson Laboratory for Genomic Medicine in Farmington, Connecticut seek human genomic solutions to disease through a variety of areas, including computational biology, immunology, the microbiome and cancer. This work provides the human complement to our mammalian studies in Maine.

The team in Sacramento, California provides genetically unique mouse models,

scientific testing, and data analysis services to pharmaceutical, life sciences and medical research communities.

Technical and customer support staff members in Shanghai facilitate access to premium quality JAX® Mice, researcher support and knowledge sharing for the Chinese scientific community.

## CONTRIBUTIONS TO MEDICAL SCIENCE

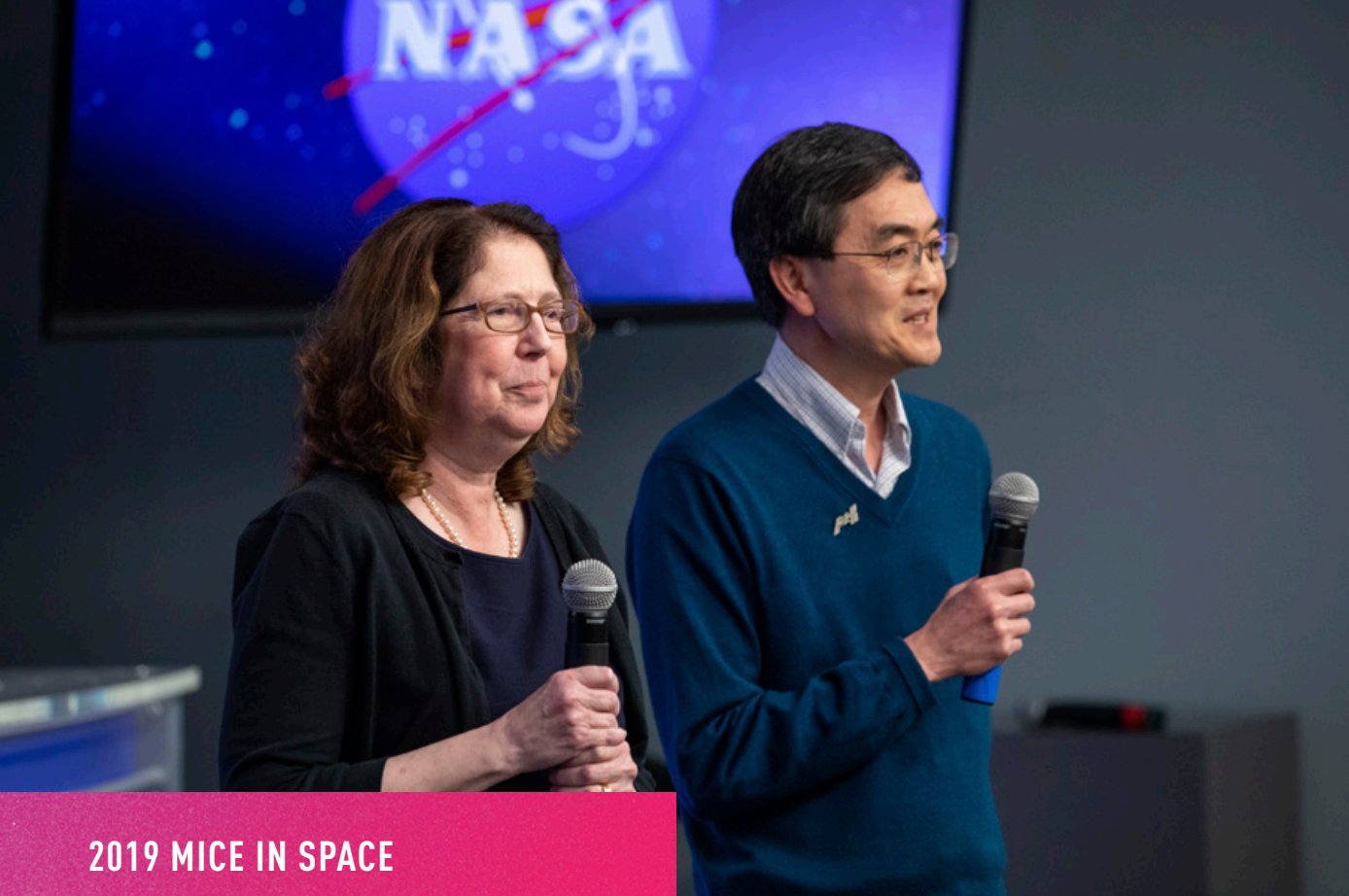
Dr. George Snell won the Nobel Prize in Physiology or Medicine in 1980 for providing an in-depth understanding of the immune system's major histocompatibility complex, making organ transplants possible.

Dr. Douglas Coleman discovered the hormone leptin, central to obesity and diabetes research.

Dr. C.C. Little, who founded JAX, led the effort to establish cancer as a genetic disorder.

Dr. Elizabeth Russell performed the first bone marrow transplants in a mammal, leading to new treatments for blood and immunological diseases.

Dr. Leroy Stevens first investigated the mechanisms in cells that allow them to develop into different tissues, leading to modern stem cell research.



## 2019 MICE IN SPACE

Genetically engineered “Mighty Mice” were launched to the International Space Station in December. They were passengers on SpaceX’s Dragon spacecraft, which was set into orbit on a Falcon 9 rocket. The mice spent about a month in space as part of a muscle and bone regeneration study being conducted by Se-Jin Lee, M.D., Ph.D., JAX Professor and Presidential Distinguished Professor at UConn School of Medicine, and Emily Germain-Lee, M.D., professor of pediatrics at UConn School of Medicine and division head of Pediatric Endocrinology at Connecticut Children’s Medical Center.

The project could benefit everyone from astronauts — helping prevent skeletal muscle and bone loss during spaceflight and enhance recovery following their return to Earth — to people who are suffering from muscle atrophy and bone degeneration-related conditions.

## EDUCATION

The Jackson Laboratory offers educational programs to students of all ages and for scientists at various stages in their careers.

The Summer Student Program has brought thousands of talented high school and college students to JAX for mentoring, including three Nobel Laureates. In 2019, there were 30 summer students in Bar Harbor and 11 in Farmington.

Over 1,000 students, researchers and physicians attend JAX courses, conferences and workshops each year.

## RESEARCH

Staff includes more than 400 Ph.D.s, M.D.s, D.V.M.s and other advanced degrees.

JAX currently supports 69 research teams. There are 42 based in Bar Harbor, Maine, and 27 in Farmington, Conn.

Scientists work collaboratively across disciplines to interrogate disease from all angles, leveraging diverse expertise in cancer, immunology, neurogenetics, life-cycle biology, computational biology and the microbiome. JAX faculty members have 324 active collaborative agreements with 146 academic research and clinical institutions.

The JAX Cancer Center has been a National Cancer Institute-designated Cancer Center since 1983.

## RESOURCES

JAX® Mice, Clinical and Research Services empowers the global biomedical community through curation of data and provision of critical models and services.

About 3 million JAX® Mice were distributed in 2019 to more than 1,400 organizations in 50 countries.

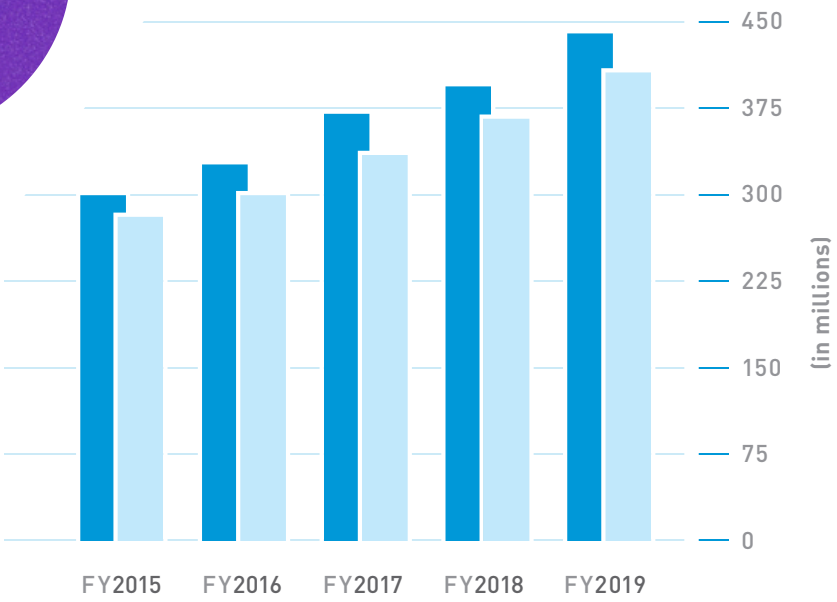
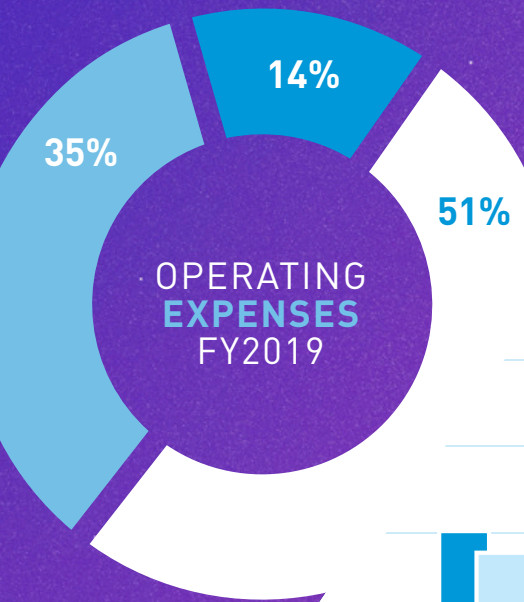
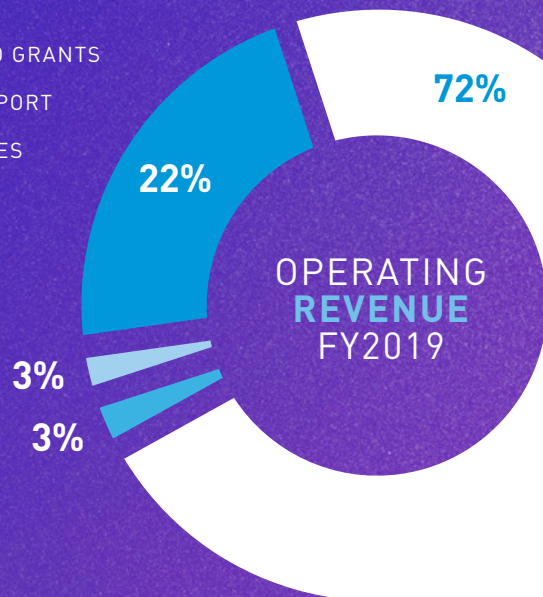
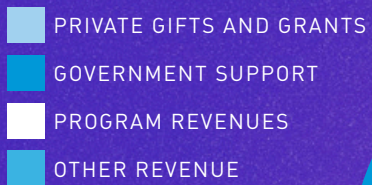
The Jackson Laboratory hosts the Mouse Genome Informatics database, the world’s source for information on mouse genetics and biology.

JAX provides in vivo drug efficacy testing, reproductive services and husbandry in a wide range of therapeutic areas for biomedical researchers.

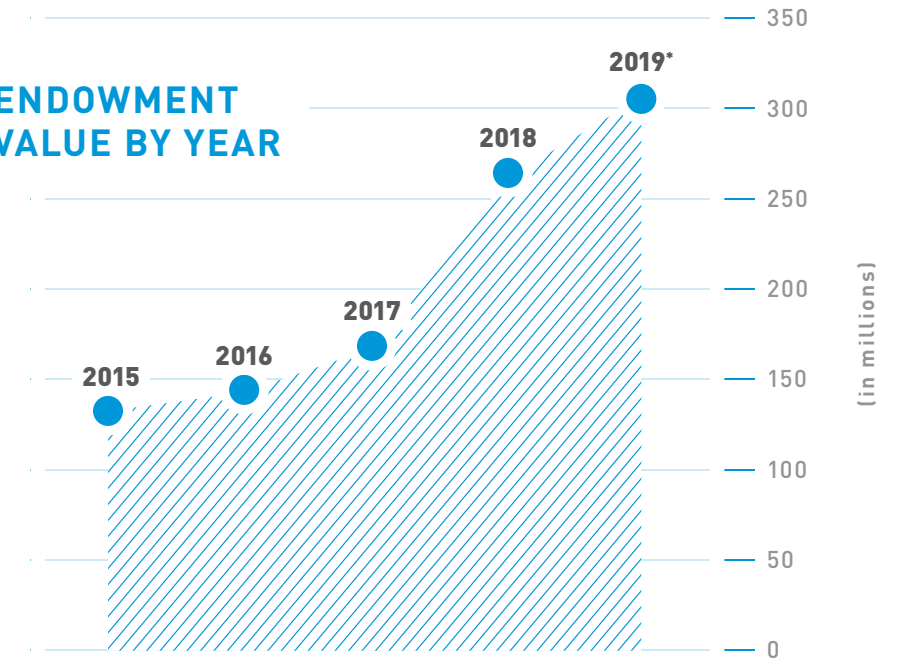
## 2020 BOARD OF TRUSTEES

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### ENDOWMENT VALUE BY YEAR



\*2019 endowment investment return of 17.7%

### STATEMENT OF FINANCIAL POSITION (IN MILLIONS)

	2019	2018
<b>ASSETS</b>		
Cash and Equivalents	199.6	202.6
Land, Buildings and Equipment	527.1	485.9
Other Assets	29.9	24.7
Endowment Investments	306.5	261.9
Net Receivables	48.5	49.6
<b>Total Assets</b>	<b>1,111.6</b>	<b>1,024.7</b>
<b>LIABILITIES AND FUND BALANCES</b>		
Current Liabilities	69.6	71.3
Bonds Payable, Net	206.7	213.5
Net Assets	835.3	739.9
<b>Total Liabilities and Net Assets</b>	<b>1,111.6</b>	<b>1,024.7</b>

# STATEMENT OF ACTIVITY

(IN MILLIONS)

	2019	2018
<b>OPERATING REVENUE</b>		
Government Support	95.3	86.8
Foundation and Other Grants	12.3	9.4
Philanthropic Gifts	2.6	4.3
Program Revenues	317.8	285.1
Investment Return	10.4	7.0
Other Revenue	2.4	2.2
<b>Operating Revenue</b>	<b>440.8</b>	<b>394.8</b>
<b>OPERATING EXPENSES</b>		
Research	141.1	138.6
Program Expenses	206.7	173.6
Institutional Support	59.1	54.5
<b>Operating Expenses</b>	<b>406.9</b>	<b>366.7</b>
<b>Increase in Net Assets from Operating Activities</b>	<b>33.9</b>	<b>28.1</b>
<b>NON-OPERATION FINANCIAL SUPPORT</b>		
Construction Grants	19.4	7.9
Contributions for Plant and Endowment	1.5	2.9
Long-Term Investment Return, Net of Amount Used	40.7	(21.2)
Realized Gain on Interest Rate Swaps	–	0.6
Adjustment to Fair Value for Connecticut Forgivable Loans	–	8.7
Other	(0.1)	0.1
<b>Increase (Decrease) in Net Assets from Non-Operating Activities</b>	<b>61.5</b>	<b>(1.0)</b>
<b>Increase in Net Assets</b>	<b>95.4</b>	<b>27.1</b>

The Jackson Laboratory is an independent, nonprofit biomedical research institution. Its mission is to discover precise genomic solutions for disease and empower the global biomedical community in the shared quest to improve human health.

To learn more, visit our website at [www.jax.org](http://www.jax.org) and subscribe to our e-publication at [www.jax.org/subscribe](http://www.jax.org/subscribe). Follow us on Twitter, Facebook, YouTube, LinkedIn and Instagram.



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